



**SDI Review Form 1.6**

Journal Name:	<a href="#">Asian Journal of Research and Reports in Endocrinology</a>
Manuscript Number:	Ms_AJRRE_48091
Title of the Manuscript:	EVALUATION OF ACUTE AND CHRONIC TOXICITY OF TARTRAZINE (E102) ON STERIOD REPRODUCTIVE HORMONES OF ALBINO RATS
Type of the Article	Original Research Article

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Compulsory</b> REVISION comments	<p>This study does not seem to have any significant outcome and we have many such references in rats itself where much more detailed study has been carried out. Why this study has been designed in rats when we have sufficient amount of information available on tartrazine toxicity in rats? Acute toxicity of tartrazine probably will not have any reasonable effect on steroid hormones because hormone secretion has a complex pathway right from its steroidogenesis to negative feedback mechanism. Well chronic toxicity studies are welcome and it may really lead to some conclusive outcome. There are some doubts which need to be explained. The doses of tartrazine used in present study are too high when compared to other studies even higher than the LD 50. It is to be revisited why such high doses have been given and why there are no mortalities despite administering doses even higher than LD 50? The time interval given between intraperitoneal administration and sampling is not mentioned in the manuscript which needs to be recorded. The tables can be clubbed together for chronic and acute trials. The discussion has repetition of statements while justifying chronic and acute toxicity trials and needs to be curtailed. References are also too much that can be restricted to important and recent ones.</p>	<p>Thanks for your critical review. However, we believe there are significant outcome from this acute study as stated in our manuscript irrespective of enormous information available on tartrazine toxicity in rats as mentioned. More so, these information on tartrazine toxicity you talked about are they strictly on steroid reproductive hormones or on a generalised ground? Besides, should it be that because of related work (even detailed study) in a particular area of study, there shouldn't be any other study/work in that area.... Even if it is just to verify the finding of others or to add to knowledge?</p> <p>Secondly, we also believe that irrespective of the complex pathway right from its steroidogenesis to negative feedback mechanism, if the primary target organ for gonadotropins (LSH/FSH) to stimulate in order produce a particular hormone is distorted, the production of that hormone will in turn be affected. E.g. If the testes (testicular cells: Leydig &amp; Sertoli cells) responsible for the production of testosterone are distorted/destroyed or hypertrophied maybe due to chemicals/xenobiotics, won't the production of testosterone in that organism be altered irrespective of the complex pathway as the primary target organ for gonadotrophic hormones (LSH/FSH) stimulation?</p> <p>In addition, even in other few related work, high doses of tartrazine have also been reported to induce alteration (lowered or higher) in the level of some hormones in the plasma.</p> <p>Once more thank you for your valuable suggestions and comments. In the chronic study, 7.5mg/kg of tartrazine was given over a period of 30, 60 and 90 days. At the end of the study, values of control rats and treated rats were compared for the various periods to observe significant fall/increase. Secondly, values of the treated rats at the various periods (30, 60 and 90 days) were also compared using ANOVA to observe the rise/fall of these hormones over time. Are there still doubts we need to explain?</p> <p>Thank for your comments and observations once more. However, I do not think the doses given were too high in the acute study because the doses were derived from the pilot study carried out. Other studies might have slightly lower or higher dose ranges which also depend on their pilot study. Our doses used most not follow/be exactly like that of other authors. More so, we think you should bear in mind that we are not looking at LD50/LD100 in this study that is why we did not give much detail about the said LD50/LD100. For details about our LD50 and LD100, please look out for our work titled: Pilot and acute toxicity of tartrazine in albino rats. <a href="https://www.ejpmr.com/admin/assets/article_issue/1507713465.pdf">https://www.ejpmr.com/admin/assets/article_issue/1507713465.pdf</a>. I will be glad to receive your valuable inputs, suggestions and comments.</p> <p>There were mortalities in this study. We cannot put all the details of our work/finding in just one manuscript. Details of the no of mortalities are also indicated in the said paper above for details.</p> <p>The acute toxicity testing was carried out within a time frame of 24 hours after the pilot study was completed. After the administration of the tartrazine dye, control and treated rats were sacrificed at the end of the 24 hours.</p> <p>The tables have been merged as suggested. We initially did not merge the tables because we were trying to separate completely the male and female sexes in different tables.</p> <p>The repetition of statements while justifying our findings in the discussion has also been</p>



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		<p>worked on. Thank you for your observation.</p> <p>In terms of the referencing being too much, we believe that referencing our sources where necessary in this manuscript is the only way to acknowledge the effort of other authors. Therefore, as long as we took information from their work, it is our responsibility to reference their work at that point in time. I pray you see reasons with us as well. Thank you.</p>
<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments	There are some typical mistakes that have been highlighted and need to be corrected.	Thank you for your valuable inputs and suggestions. All your corrections and suggestions have been implemented. Truly, we are grateful for all your valuable inputs. It has definitely improved the quality of the manuscript. Thank you.

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Are there ethical issues in this manuscript?</b>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p> <p>Nowhere in the manuscript it is mentioned that institutional ethical committee has permitted present study in rats. Since the study is invasive, toxicity risk involved, thus need ethical committee clearance.</p>	<p>I think that was mentioned under Ethical approval. Please, bear in mind that we do not have 'strong institution(s)' in this part of the world that 'protect/enforce' laws in the use of laboratory animals in research as obtainable in Europe and other developed countries. However, because experimental animals were used, blood samples were collected, toxicity was studied and so on, all experimental protocols were examined and approved by the Rivers State University research/ethics committee with the file no: RSU/VC/APU/74/VOL.VIII/104. I won't hesitate to send you a copy of this letter to clear your doubts. Thank you.</p>